

where rainfall has been remarkably deficient for six months or more.

In large portions of Texas the month was without material rainfall, while in New Mexico severe drought for many months past still continued. At Roswell, N. Mex., the continued lack of rain had resulted in lowering the flow of water from artesian wells to unprecedented levels, and where they normally flowed spontaneously it has become necessary to resort to pumping and even that failed in many wells. Also at other points in that State the diminishing water supply was becoming serious.

On the other hand, precipitation was unusually heavy in the upper Mississippi Valley and portions of the Dakotas and adjacent States, and there was a general excess to the westward as far as the Plateau States and over California and Arizona. At a few points the monthly precipitation was the greatest of record, notably at Charles City, Iowa, while at other points in the north-eastern portion of that State it was equal to or greater than had been previously recorded in June.

## SNOWFALL

As far as available reports indicate, no snow occurred during the month east of the Rocky Mountains. In the high elevations of those mountains amounts up to 10 or 12 inches occurred, mostly in Colorado, Wyoming, and Montana, while light snows fell at points in the high mountains of California and Arizona.

## RELATIVE HUMIDITY

Over nearly all central and eastern districts there was a general deficiency in the relative humidity, the negative departures from the normal being usually quite large from the southern Plains northeastward to the Appalachian Mountain region. In the Northern States from the Great Lakes to the Rocky Mountains there was a rather general excess of relative humidity, and similar conditions existed over many sections of the Rocky Mountain and Plateau States.

## SEVERE LOCAL HAIL AND WIND STORMS, JUNE, 1925

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path, yard <sup>1</sup>	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Marlette, Mich. (near).....	1					Tornado.....	Several farm buildings demolished.....	Official, U. S. Weather Bureau.
Bourne, Mass.....	1					Hail.....	Glass in windows and hothouses broken.....	Do.
Pleasant City, Wash.....	1		2,640			do.....	Crops damaged.....	Do.
Mondovi, Wis.....	1	4-5 p. m.	880			Heavy hail.....	Severe crop damage.....	Do.
Junction City, Kans.....	1	4:30 p. m.	2,640		\$20,000	Hail.....	Greenhouses and auto tops damaged; fruit and other crops injured.	Do.
Crawford County, Kans.....	1	do.....			100,000	Tornado.....	Schoolhouse and several dwellings wrecked; orchards and wheat fields damaged. Heaviest losses in Wier and Scammon. Four persons injured.	Official, U. S. Weather Bureau; Daily Capital (Topeka, Kans.).
Iowa (parts of).....	1-3			10	(?)	Series of tornadoes, rain, hail.	Crop and property losses extensive; many persons injured. Heavy damage in Sioux City.	Tribune (Sioux City, Iowa); Official, U. S. Weather Bureau.
Methow, Wash. (vicinity of).....	2	10 a. m.	1,760		75,000	Hail.....	Apple crop loss heavy.....	Official, U. S. Weather Bureau.
Lakeside, Wash. (vicinity of).....	2	do.....	3,520		20,000-25,000	do.....	Apple orchards damaged.....	Do.
Ionia, Mich. (near).....	2	P. m.				Small tornado.....	Several barns, silos, and outbuildings wrecked; trees uprooted; houses moved from foundations. One person injured.	Free Press (Detroit, Mich.).
Minneapolis, Minn., and vicinity.	2	do.....		5		High wind.....	Building demolished; trees uprooted; a number of lives lost and a score of persons injured.	Official, U. S. Weather Bureau.
Madison County, Nebr. (South part of).	2	3 p. m.		3	\$200,000-250,000	Tornado.....	Buildings on three farms completely destroyed, others damaged; 100 head of cattle, 25 horses, and thousands of chickens killed. Much crop damage over path 4 miles long.	Do.
Otoe and Cass Counties, Nebr.	2	3:30 p. m.	440-880		200,000	do.....	Everything in path wrecked; path 30 miles long; livestock killed.	Do.
McPherson County, Kans.	2	3-4 p. m.	16-33		65,000	do.....	Damage chiefly to telephone lines and barns.	Do.
Riley and Pottawatomie Counties, Kans.	2	5 p. m.	50-100		35,000	do.....	Property and crops damaged; heaviest loss at Garrison.	Do.
Clark County, Wis. (south-west part of).	2	10:30 p. m.	65-100		30,000	do.....	Loss mainly to farm buildings; some damage to orchards and crops over path 20 miles long.	Do.
Brule, Wis.....	3	1 a. m.		1	2,800	Probably small tornado.	Amount and character of damage not reported.	Do.
St. Joseph, Mo., and vicinity.	3	A. m.			500,000	Rain and wind.....	Heavy damage in city by flooding; considerable crop destruction; many bridges washed out.	Do.
Ludington, Mich., and vicinity.	3	11 p. m. midnight.				Thunderstorm.....	Buildings north and east of city damaged by lightning.	Do.
Omaha, Nebr.....	3					Thunderstorm and tornadoic wind.	Roofs and porches damaged; small house moved from foundation.	Do.
Artesia, N. Mex. (near).....	4	5:05-5:15 p. m.	880-1,760			Severe hail.....	Much glass broken.....	Do.
Manning, S. C. (near).....	5	P. m.			9,000	Electrical and hail.	Church damaged at Jordan; barn destroyed; considerable crop loss.	Do.
Farke County, Ind. (east part of).	6				4,000	Electrical.....	Two barns destroyed.....	Do.
Wray, Colo. (near).....	6	1:30 p. m.	1,760		100,000	Tornado.....	Many homes and farm buildings destroyed; stock killed; trees and telephone lines prostrated; path 22 miles long; 6 persons seriously injured.	Do.
Rockport, Mo.....	7	4 p. m.			7,000	Small tornado.....	Small outhouses, barns, and chimneys blown over; trees uprooted.	Do.
Ardmore, Okla. (near).....	7	6 p. m.	100	1		Wind.....	One small residence demolished; two oil storage tanks moved; minor property damage.	Do.
Baltimore County, Md.....	8	3 p. m.	1,760		16,000	Thunderstorm and hail.	Damage principally to crops; tents of military camp blown down; trees uprooted; home under construction wrecked.	Do.
Cumberland, Md.....	8	7 p. m.			25,000	Electrical and heavy rain.	Heavy damage by rain.....	Do.
Mechanicsville, Md. (near).....	8			1		Electrical.....	Several buildings damaged; 2 horses killed.....	Do.
Niles, Ohio.....	8					Wind and rain.....	Roofs blown off; box cars lifted from tracks; streets impassable.	Do.

<sup>1</sup> Yards when not otherwise specified. "Mi." signifies miles.

<sup>2</sup> See note for the entry below: "Iowa (parts of): 11."

## SEVERE LOCAL HAIL AND WIND STORMS, JUNE, 1925—Continued

Place	Date	Time	Width of path, yard	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Manning, S. C.	9	6 p. m.			\$2,000	Wind	A number of buildings damaged; shade trees blown down.	Official, U. S. Weather Bureau.
Lower Peninsula, Mich.	9					do	Great crop damage, principally to onions, pepper mint, cabbage, and early corn.	Do.
Ballinger, Tex. (near)	9		6 mi.			Hail	Some property damage, also gardens and crops, including total loss of cotton.	Do.
Athens, Ga.	10	P. m.				Wind	General damage done.	Do.
Santa Rosa, N. Mex., and vicinity.	10	12:30-1:30 p. m.	3,520		5,000	Heavy hail.	Character of damage not reported.	Do.
Garden City, Kans.	10	6 p. m.	1-6 mi.		90,000	Severe hail.	Extensive damage to growing wheat.	Do.
Dodge City, Kans. (near)	10	10 p. m.			100,000	do	Heavy damage to growing corn and wheat.	Do.
Cochrane, Wis.	11	6 a. m.	1,760		25,000	Moderate to heavy hail.	Much damage to crops over a path 6 miles long.	Do.
Cheyenne County, Kans.	11	4 p. m.	5 mi.		150,000	Hail	One of the most destructive storms in the history of the county. Chief damage to wheat.	Do.
Dundy, Hitchcock, and Red Willow Counties, Nebr.	11	4-7 p. m.	4-10 mi.			do	Crops in path injured 10 to 75 per cent; minor property damage.	Do.
Chapman, Nebr. (near)	11	5:30 p. m.	60-100			Tornado	Some property damage.	Do.
Iowa (parts of)	11				1,050,000	Series of tornadoes, destructive hail, and rain.	Extensive damage to property and crops; many persons injured.	Do.
Eagle Prairie, Wis.	12	2 p. m.			1,000	Thunder squall.	Silos and sheds damaged.	Do.
Fortville, Wis.	12		3 mi.		1,500	do	Damage mainly to small farm buildings.	Do.
Blair, Wis.	13	5 p. m.	2,640		10,000	Heavy hail.	Severe crop damage.	Do.
Juneau County, Wis. (sw. part of)	13	5:45 p. m.	20		70,000	Small tornado and hail.	Barns and outbuildings razed; several houses partially unroofed; some livestock killed; extensive crop damage.	Do.
Calhoun County, Iowa	13					Hail	Crops damaged about 50 per cent.	Do.
Red Oak, Iowa	14	A. m.				do	Much glass broken and crops injured.	Do.
Polk County, Nebr.	14	7 a. m.	2-3 mi.			do	Damage severe in places; crops more or less damaged, some completely destroyed.	Do.
David City, Nebr.	14	8 a. m.	8-10 mi.			do	Crop damage estimated from 30 to 40 per cent.	Do.
Malvern, Iowa	14	10 a. m.				do	Crops considerably injured.	Do.
Adams County, Iowa	14	11 a. m.	2 mi.		35,000	do	do	Do.
Webster County, Nebr.	14	5 p. m.	2 mi.		25,000	do	Considerable damage in area covered.	Do.
Denver, Colo., and vicinity	14	7 p. m.	1,760		10,000	Heavy hail.	Much glass in greenhouses broken; fruit trees stripped in some sections.	Do.
Omaha, Nebr.	14					Hail and wind.	Great damage to glass; fruit bruised and knocked off.	Do.
Carthage, Ill. (2 miles north of)	14		100		10,000	Tornadoic wind.	All buildings on one farm destroyed; crops and timber damaged; 3 persons injured.	Do.
Mason County, Ill. (east part of)	14				20,000	Wind.	Damage to farm property over 15-mile path.	Do.
Deaver, Wyo.	15	4:20-4:35 p. m.				Heavy hail.	Washed out structures; damaged hay and gardens.	Do.
Greeley, Colo.	15	5-9 p. m.	3,520			Hail and rain.	Crops destroyed over path 8 miles long; windows and roofs damaged.	Do.
Fort Lupton, Colo.	15	5-9 p. m.	3,520			do	Considerable crop damage; minor property damage.	Do.
Clay Center, Kans. (near)	15	7:30 p. m.	200		10,000	Tornado.	Farm buildings damaged.	Do.
Delphos, Kans.	15	8:30 p. m.	1,760		100,000	do	Residences, outbuildings, water works, light plant, and telephone exchange badly damaged.	Do.
Erie County, Pa. (south part of)	15					Hail	Much crop damage reported.	Do.
New Hartford, Conn., and vicinity.	15					High wind and rain.	Tobacco and orchards damaged; highways blocked; several homes unroofed.	Hartford Courant (Conn.).
Portland, Me.	16	5:45 a. m.				Thunderstorm.	Two houses struck by lightning; several telephone lines out of commission; trees torn up.	Official, U. S. Weather Bureau.
Blue Hill, Nebr. (near)	16	5 p. m.				Tornado.	Barns and outbuildings on one farm total loss, house damaged.	Do.
Polk County, Nebr.	16	7 p. m.	50		1,000	do	Several barns and sheds wrecked; trees uprooted.	Do.
Prague, Nebr. (2 miles south of)	16	7:30 p. m.	440			do	Country schoolhouse wrecked; buildings on two farms damaged.	Do.
Columbia, Mo.	17	9 p. m.			1,200	Severe electric, wind, and rain.	Minor damage about the city; lowlands flooded, destroying crops.	Do.
Nashville, Tenn.	18				5,000	Thunderstorm.	Several buildings damaged.	Do.
Abilene, Tex. (4 miles north of)	18		1,760			Hail.	Heavy damage over small area.	Do.
St. Paul, Nebr.	20	3:45-3:55 p. m.	880			do	Gardens and crops injured.	Do.
Orange to Nansemond Counties, Va.	21	P. m.	1½-20 mi.			Severe thunderstorm and hail.	Serious loss to crops and considerable damage to buildings. Damage in Richmond estimated at \$75,000.	Do.
Chowan, Bertie, Beaufort, Pitt, Green, and Lenoir Counties, N. C.	21				250,000	Hail.	Cotton, corn, and tobacco badly damaged.	Do.
Nas Nutrias, N. Mex.	22			1		Severe thunderstorm.	One person killed by lightning; no property damage reported.	Do.
Hawkinsville, Ga.	23					Wind, rain, and hail.	Shade trees, electric light and telephone wires down; several small houses unroofed.	Do.
Dora, N. Mex. (near)	23-24					Wind and rain.	Windmills and outbuildings damaged.	Do.
Lexington, Ky. (near)	24	8 p. m.	3,520			Thunderstorm and hail.	Tobacco badly damaged over path 6 miles long.	Do.
Webster County, Nebr.	26	6 p. m.	1-2 mi.		50,000	Hail and wind.	Poultry and cattle injured; crops damaged.	Do.
McLean, N. Y., and vicinity.	27	3 p. m.	1,760		3,000-5,000	Moderate hail.	Truck gardens damaged.	Do.
Atchison, Nodaway, and Andrew Counties, Mo.	27	8-10:30 p. m.			100,000	Severe hail.	Storm very severe in Fillmore, many persons injured; roofs pierced; some hogs killed; windows and autos damaged. Heaviest damage to wheat and oat crops.	Do.
Gage County, Nebr.	27	10 p. m.	3-6 mi.			Hail.	Corn stripped; small grains injured and garden truck ruined.	Do.
Fremont County, Iowa (east part of)	28	2 a. m.			10,000	do	Crops damaged 15 per cent.	Do.
Mills County, Iowa	28	2 a. m.	1,760			do	Crops damaged 5 to 25 per cent.	Do.
Cato, N. Y.	28				5,000	Thunderstorm.	Valuable cattle killed by lightning; no other damage reported.	Do.
Esopus, Marlboro, Middlehope, and Cornwall, N. Y.	29	1:30 p. m.	1-8 mi.		200,000-350,000	Heavy hail, rain, and wind.	Heavy damage to apples, pears, cherries, and grapes; soil washed by torrential rains; vineyards damaged by wind.	Do.
Stillwater, Okla.	30	4 p. m.	880		8,000	Wind and hail.	Considerable property and crop damage.	Do.

¹ Includes damage done in Iowa on June 1-3.